

Exercise 1 Let $f(x) = \frac{1}{x}$.

- (a) Compute $AV_{[x, x+1]}$. Assume $[x, x+1]$ is in the domain of f . Your answer will involve the variable x .

$$AV_{[x, x+1]} = \boxed{-\frac{1}{x^2 + x}}.$$

- (b) Compute $AV_{[x, x+h]}$. Assume $[x, x+h]$ is in the domain of f . Your answer will involve the variables x and h .

$$AV_{[x, x+h]} = \boxed{-\frac{1}{x^2 + xh}}.$$
